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Date: Feb. 06, 2003

Hoffman John
Primer Patent Examiner US Patent TMO
Organization TC 1700 Bldg./Room CP3
U.S. Department of Commerce
Patent and Trade Mark Office
Washington, DC 20231

OK to Enter

SUBJECT: Patent Application 09/685,204 10/10/2000 which is CIP of 09/268,634 03/16/1999 Title: "Multifunctional Apparatus to Manufacture Mineral Basalt Fibers". Art Unit 1731.

Notice of Amendment

RE: Notice of Allowance and Fee $650 (Date Due 04/30/2003).
Patent Examiner's (John Hoffman) Amendment mailed 01-31-2003

Dear Patent Examiner – John Hoffman

To your attention a Notice of Amendment relating missed parts/components of multifunctional apparatus listed in ATTACHMENT along with argumentation.. Claim 1 with amendments which include lost components and its functionality is appended too. The items listed bellow are made in accordance your recommendations during telephone interview on January 29, 2003. They are as follows:

1. Enclosed check payment $650 allowance of patent issuance fee (after amendments)
2. Three Declarations (three forms) discussed during phone interview Jan. 29, 2003 are appended. The corrections are made in accordance your recommendations.
3. The corrected and clean copy Patent Application *09/685,204 10/10/2000* "Multifunctional Apparatus To Manufacture Mineral Basalt Fibers " with five (5) Figures are appended. The places relating patent 6,125,660) on pages 11, 15 are excluded.
4. The correction (7 – 100 microns) in Claim 1 is made in accordance your recommendations during Jan. 29 /03 telephone interview.
5. I'm authorizing you make corrections of amendments included in Claim 1.

Please consider amendments listed in Attachment. I'm authorizing you make corrections relating each component of amendments. The amendments should not post-pone application because they are return missed key parts with its functionality. They are vitally important components of an invention. The efficient basalt rock melting, melted rock turbulence flow and complete /efficient glass body homogenization in collector as well as a final heat-treatment in a fore-chamber of a bushing (to provide complete destruction of high melting point complex metal oxides clusters) right before fiber formation is crucially important. This key sense of high quality basalt fiber roving and coarse basalt fiber with ductile properties manufacturing technology is lost in Claim 1.

Vladimir Brik – author. Vlad. Brik

PS: Please send correspondence by address: 2302 Jonquil Rd., Madison, WI-53704. Make sure my email: v_bbrik0124@hotmail.com is permanent. You can ask me by phone: (608) 442-8415 if any questions.

CC: Steve Griffin

ATTACHMENT

Claim 1 AMENDMENTS Relating missed parts-components of invention.

1. The title of patent application is "Multifunctional Apparatus to Manufacture Mineral **Basalt** Fiber". The key word "basalt" is lost in Claim 1.
2. The horizontally oriented apparatus having one side melting chamber for low viscosity basalts presented in Figure 5 is lost in Claim 1 Examiner's Amendment.
3. The first and second melting chamber retorts (capable rotate) presented in Figure 3 are lost in Claim 1 (version 1-30-03). Claim 1 presents only stationary (first and second) melting chambers shown in Figure 2. Stationary chambers are not capable rotate. The rotation is important when basalts containing high-gravity, high-viscosity components are used. Figure 2 shows stationary chambers, and Figure 3 shows rotating melting chambers. Rotating chambers as opposed stationary contain two tipped section –cones. One bigger cone is made from high wear resistant refractory metallic and smaller cone (which can be easily replaced made from 3300F melting point advanced ceramic materials.
4. The ceramic bushing in Claim 1 contains two chambers (upper and a lower chambers) with different functionality. These chambers are lost in Claim 1. The upper - fore chamber of bushing is adapted to provide additional heat-treatment (overheating) of melted basalt glass body coming from collector. The overheating (to temperature slightly greater than in collector) in fore-chamber of bushing is novel approach to all current bushings design both basalt and E-glass fiber industries. The additional overheating of glass body in a bushing right before fiber formation is crucially important to manufacture basalt fiber in amorphous structure state. The only amorphous basalt fiber exhibit flexible ductile properties. The upper fore (glass body inlet) and the lower (glass body withdraw) chambers of ceramic bushing are key the most important components of entire basalt fiber manufacturing (high-quality basalt fiber roving production).

5. The horizontally oriented apparatus (presented in Figure 5) is lost. It has only one (but not two) melting chamber. The horizontally riented apparatus adapted basalt low-viscosity glass body homogenization utilizing one direction glass body flow. The low viscosity basalts glass body homogenization proceeds during one direction flow through zones with different depths (Figure 5). The different depth of zones is crucially important to prepare homogeneous glass body. This aspect of invention is lost in Claim 1 completely.
6. Multifunctional apparatus in present invention is designed to manufacture basalt fibers with ductile properties (!) from natural basalt rocks having a variety of chemical composition – minerals and petrology characteristics. This important aspect (in Claim 1 made by patent examiner) is also lost completely.

Please consider listed above amendments relating important components of invention.
The modified Claim 1includes concise amendments relating lost parts/ components of invention is appended.
Vladimir Brik – inventor of "Multifunctional Apparatus to Manufacture Mineral Basalt Fibers".

V. Brik Feb. 06, 2003

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